SCIENCE

Cross curricular links
Mathematics, English, geography, PSHE, physical education, social skills, careers, preparation for adulthood.

Skills
Analysis, attention to detail, communication, problem solving, patience.

Further study
Access science, GCSE science, engineering, traineeship, apprenticeship.

Career paths
Lab technician, health & social care, renewables, engineering, beekeeping, gardening and horticulture, farmer, animal care.

KS3 YEAR 1

Physics
- Sound
- Light
- How light travels?
- Reflection
- Refraction
- Colour spectrum
- Shadows
- Transparent
- Translucent
- Opaque

Chemistry
- Solids, Liquids and Gases
- Atoms and Molecules
- Separation
- Filtering
- Evaporation
- Condensation
- Precipitation

Biology
- Group Classification
- Life Cycles
- Support and Movement
- Diets
- Habitats
- Evolution
- Charles Darwin

Biology
- Plant Parts
- Plant Functions
- Life Cycles
- Requirements for Life and Growth
- Classification of Plants

Chemistry
- Earth
- Human Impact on Earth
- Rocks
- Volcano Formation and Types
- Volcanic Eruptions

Physics
- Renewables
- Climate Change
- Global Warming

KS3 YEAR 2

Biology
- Digestive System
- Healthy Eating
- Immune System
- Heart and Lungs

Chemistry
- Chemical Reactions in Food
- Basic food hygiene
- Pathogens & food poisoning
- Handling food safely
- Sell by, use by, best before
- Storing food safely

Physics
- Magnetic material
- Magnetic fields
- Earth's magnetic field
- Electromagnets

Biology
- Use of microscopes
- Plant cells
- Plant anatomy
- Pollination and seed dispersal
- Photosynthesis

KS3 YEAR 3

Physics
- Types of forces
- Balanced and unbalanced force
- Friction
- Gravity
- Speed and movement
- Distance / time graphs

Chemistry
- Hazard labels and meanings
- Acids & alkalis
- Ph and indicators
- Natural indicators
- Neutralisation

Biology
- Human and the Environment
- Variation and Adoption

Physics
- Heat & temperature
- Expansion & contraction
- Conduction
- Convection
- Radiation
- Energy efficient design

Chemistry
- Electrical Circuits
- Insulators
- Conductors
- Current
- Voltage
- Completing a Circuit
- Making Predictions

Biology
- Reproduction
- Plants
- Animals
- Humans
- Pollination
- Life Cycles
- Reproductive Organs

Chemistry
- Spherical bodies
- Phases of the moon
- The solar system
- Life cycle of stars
- Constellations

Physics
- Energy
- Radiation
- Convection
- Conduction
- Measuring Energy
- Electrical Appliances
- Fuels

KS4 YEAR 1

Biology
- Basic food hygiene
- Pathogens & food poisoning
- Handling food safely
- Sell by, use by, best before
- Storing food safely

Chemistry
- Physical & chemical changes
- Emulsifiers
- Research & preparation to cook a meal
- Equipment and methods
- Fermentation

Physics
- Energy types and transfers
- Electrical charge
- Current & potential difference
- Series & parallel circuits
- Resistance

Biology
- Parts of a plant
- Embryo pants
- Planting
- Visit a garden centre
- Osmosis
- Environmental factors

KS4 YEAR 2

Physics
- Health and Fitness
- Forces and Motion
- Nutrition & balanced diet
- BMI
- Nutrients and deficiency
- Aerobic respiration

Chemistry
- Acids & alkalis
- Pressure
- Respiration & circulation
- Chemical reactions
- Electrical charge

Biology
- Cells
- Using a microscope
- DNA & variation
- Inherited & environmental causes
- Natural selection

Physics
- Spherical bodies
- Phases of the moon
- The solar system
- Life cycle of stars
- Constellations
- Space Physics

Chemistry
- Periodic Table
- Chemical Reactions
- Elements
- Physical and Chemical Properties
- Dimitri Mendeleev